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| TOC | Preface | Chapter1 | Chapter2 | Chapter3 | Chapter4 | Chapter5 | Chapter6 | Chapter7 | ALL

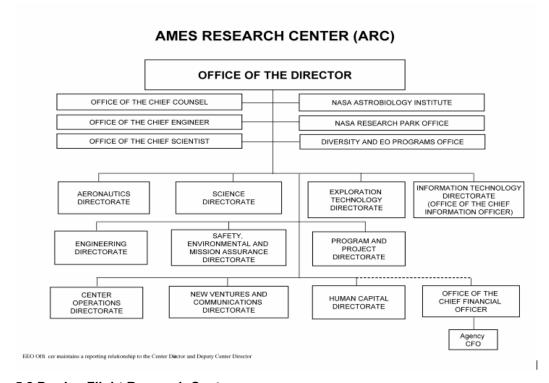
Chapter 5: Mission Statements and Organizational Charts for Centers, NASA's Federally Funded Research and Development Center, Technical ∓ Service Support Centers

5.1 Ames Research Center

- 5.1.1 MISSION. Ames Research Center (ARC), located in California's Silicon Valley, enables exploration through selected developments, innovative technologies, and interdisciplinary scientific discovery. ARC provides leadership in Astrobiology; small-satellites; technologies for CEV, CLV, and HLV; the search for habitable planets; supercomputing; intelligent/adaptive systems; advanced thermal protection; and airborne astronomy. ARC develops tools for a safer, more efficient national airspace and unique partnerships benefiting NASA's mission.
- 5.1.2 OVERALL RESPONSIBILITIES. All Center Directors report to the NASA Associate Administrator and are responsible for providing resources, overseeing the assignment of workforce and facilities, and managing Center operations to facilitate program and project execution while ensuring that the statutory, regulatory, and fiduciary compliance requirements for the Center are met. Center Directors also serve as an important link in the Technical Authority line. By means of the Institutional (Technical and Mission Support) Authority vested in them, Center Directors facilitate the activities of the Technical Authorities as well as Mission Support Authorities and are responsible for assuring that activities at their Centers are implemented in accordance with accepted standards of professional practice and applicable NASA requirements. Center Directors are responsible for the care of institutional assets and for establishing and maintaining the staff and their competency and the facilities required by current and future programs and projects. A key institutional role of Center Directors is that of service across Mission Directorate needs, determining how best to support the various programs and projects hosted at a given Center, in accordance with Agency priorities, and communicating any issues to Mission Directorate AAs and higher.
- 5.1.2.1 Specifically, the Center Director for ARC:
- a. Develops and implements plans that address the organization's goals, objectives, metrics, and actions needed to execute the strategic goals and outcomes in the NASA Strategic Plan.
- b. Collaborates with other Centers and with the Mission Directorates to accomplish the Agency's objectives.
- c. Provides technical and institutional resources to satisfy program requirements and schedules to include engineering and safety and mission assurance; ensures that human, financial, physical, and other supporting resources are properly applied to programs.
- d. Maintains a safe and healthy, environmentally friendly work environment for the workforce and provides safety, reliability, and quality assurance for all Center activities.
- e. Is the Technical Authority for all NASA projects or subprojects hosted at ARC. This role requires the Center Director to:
- 1) Exercise Technical Authority through appropriate delegation.
- 2) Convene an independent review at major milestones to ascertain technical readiness.
- 3) Approve the flight readiness of projects for which he/she is the Technical Authority.
- 4) Provide for organizational and financial independence of the Technical Authorities at ARC and implement the Dissenting Opinion Process as required in NPD 1000.0, NASA Governance and Strategic Management Handbook, and described further in NPR 7120.5. Ensure alignment with the Agency's shared core values of safety, excellence, teamwork, and integrity.
- f. Provides regular review and reporting of program and project performance in accordance with Agency program and project policies. Provides input for the Agency Program Management Council reviews.
- g. Coordinates and communicates ARC's program, project, and policy implementation activities with other Centers and Headquarters on a regular hasis
- h. Represents NASA and ARC in promoting and maintaining good public and community relations and providing for the widest practical and appropriate dissemination of information concerning space activities. Conducts education and public outreach as coordinated with the Office of Strategic Communications at NASA Headquarters prior to the award of a contract or the expenditure of funds to ensure Agency-wide priorities and consistent communications.
- i. Provides concurrence to the Agency CFO regarding the assignment, promotion, discipline, and relief of the principal financial official at ARC. Also, provides the Agency CFO with a written evaluation of the principal financial official at ARC, which shall be attached to that individual's annual performance appraisal.
- j. Contributes individually, and as part of the Center teams, essential technologies, subsystems, and capabilities to Ares and Orion, including thermal protection, launch mission systems, integrated systems health management, and ascent abort/crew escape logic.
- k. Provides leadership for NASA's astrobiology science mission to study the origin, evolution, distribution, and destiny of life in the universe.
- I. Oversees the NASA Astrobiology Institute (NAI) and its cadre of domestic and international partners; serves as the home base for the NAI administrative offices. Similarly, provides leadership in reinvigorating lunar science in the United States in its role as steward of the NASA Lunar

Science Institute.

- m. Leads the science of NASA's airborne physical sciences missions, in particular the Stratospheric Observatory for Infrared Astronomy (SOFIA)
- n. Leads the science and technical management of selected NASA missions (including the development of atmospheric probes) to search for habitable environments, understand the origin and evolution of life, and develop the tools needed for this exploration; develops airborne sensors.
- o. Provides innovative solutions to science and exploration problems in the form of small satellites and other craft, e.g., the Lunar CRater Observation and Sensing (LCROSS) and Lunar Atmosphere and Dust Environment Explorer (LADEE) missions.
- p. Provides leadership for NASA information sciences and technology, particularly research in the critical subdisciplines of automated reasoning for autonomous systems, high-performance computing and networking, and human-centered computing. Performs Earth science investigations, in particular, ecosystems research supported by advanced supercomputing and modeling.
- q. Develops new applications to enable and enhance space exploration, in particular, techniques to reduce mass and increase vehicle payload capacity and advanced thermal protection systems for transportation and planetary-entry missions.
- r. Serves as a NASA leader in the area of IT security in support of the NASA Chief Information Officer; maintains the agency's IT Security Operations Center.
- s. Provides leadership in defining concepts of operation and developing technologies to enable significant increases in the capacity of the Nation's air transportation system.
- t. Contributes pathfinding research to provide system-level analysis capability for flight vehicles in all speed regimes.
- u. Develops models of human performance and analysis capabilities for human-operated systems that are integral to enhancing the safety of flight vehicles and of the aviation system as a whole.
- v. Develops innovative green technologies and practices.
- w. Forges innovative partnerships with premiere academic institutions and private-sector organizations to enhance Ames' work in areas such as biotechnology, space and Earth science, robotics, enabling and green technologies, and helps ignite the development of commercial space capabilities, particularly Commercial Orbital Transportation Services (COTS). Achieves this in part through management of the NASA Research Park and the University Affiliated Research Center (with the University of California) and implementation of Enhanced Use Leasing (EUL).
- x. Provides research and technical leadership in the study of radiation biomarkers and countermeasures to mitigate effects of space radiation in human space flight.
- y. Transfers technology to the public and private sectors and spins external technologies back into NASA programs and projects.
- 5.1.3 SPECIAL RELATIONSHIPS.
- 5.1.3.1 Serves as a member of NASA's Strategic Management Council, Operations Management Council, and Program Management Council.
- 5.1.3.2 ARC serves as host to other Federal, military, and civilian organizations, such as the California Air National Guard.
- 5.1.4. LINE OF SUCCESSION. In the following order: Deputy Director, Ames Research Center; Deputy Director for Research; Chief Financial Officer; Director of Aeronautics; Director of Safety, Environmental and Mission Assurance; Director of Science; Director of Strategic Business; Chief Counsel; Director of Human Capital; Deputy Associate Director; Director of Exploration Technology; Director of Project Management; Director of Engineering; Chief Information Officer; and Director of Center Operations.



5.2 Dryden Flight Research Center

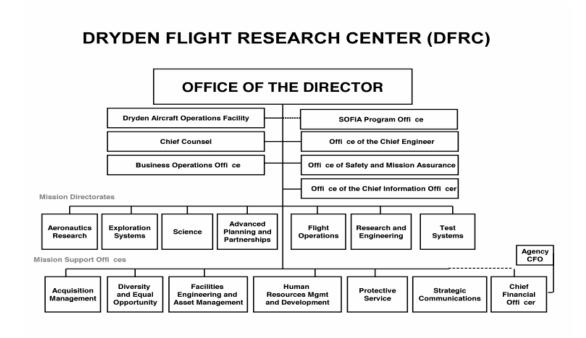
5.2.1 MISSION. Advancing technology and science through flight. The Dryden Flight Research Center (DFRC), located at Edwards Air Force Base, California, performs flight research and technology integration to revolutionize aviation and pioneer aerospace technology, validates space exploration concepts, conducts airborne remote sensing and science missions, enables airborne astrophysics observation missions to discover the origin, structure, evolution, and destiny of the universe, and supports operations of the Space Shuttle and the International Space Station for NASA

and the Nation. Dryden supports activities in all four of NASA's Mission Directorates.

5.2.2 OVERALL RESPONSIBILITIES. All Center Directors report to the NASA Associate Administrator and are responsible for providing resources, overseeing the assignment of workforce and facilities, and managing Center operations to facilitate program and project execution while ensuring that the statutory, regulatory, and fiduciary compliance requirements for the Center are met. Center Directors also serve as an important link in the Technical Authority line. By means of the Institutional (Technical and Mission Support) Authority vested in them, Center Directors facilitate the activities of the Technical Authorities as well as Mission Support Authorities and are responsible for assuring that activities at their Centers are implemented in accordance with accepted standards of professional practice and applicable NASA requirements. Center Directors are responsible for the care of institutional assets and for establishing and maintaining the staff and their competency and the facilities required by current and future programs and projects. A key institutional role of Center Directors is that of service across Mission Directorate needs, determining how best to support the various programs and projects hosted at a given Center, in accordance with Agency priorities and communicating any issues to Mission Directorate AAs and higher.

5.2.2.1 Specifically, the Center Director for DFRC:

- a. Develops and implements plans that address the organization's goals, objectives, metrics, and actions needed to execute the strategic goals and outcomes in the NASA Strategic Plan.
- b. Collaborates with other Centers and with the Mission Directorates to accomplish the Agency's objectives.
- c. Provides technical and institutional resources to satisfy program requirements and schedules to include engineering and safety and mission assurance; ensures that human, financial, physical, and other supporting resources are properly applied to programs.
- d. Maintains a safe and healthy, environmentally friendly work environment for the workforce and ensures safety, reliability, and quality assurance for all Center activities.
- e. Is the Technical Authority for all NASA projects or subprojects hosted at DFRC. This role requires the Center Director to:
- 1) Exercise Technical Authority through appropriate delegation.
- 2) Convene an independent review at major milestones to ascertain technical readiness.
- 3) Approve the flight readiness of projects for which he/she is the Technical Authority.
- 4) Provide for organizational and financial independence of the Technical Authorities at DFRC and implement the Dissenting Opinion Process as required in NPD 1000.0, NASA Governance and Strategic Management Handbook, and described further in NPR 7120.5. Ensure alignment with the Agency's shared core values of safety, excellence, teamwork, and integrity.
- f. Provides regular review and reporting of program and project performance in accordance with Agency program and project policies. Provides input for the Agency Program Management Council reviews.
- g. Coordinates and communicates DFRC's program, project, and policy implementation activities with other Centers and Headquarters on a regular basis.
- h. Represents NASA and DFRC in promoting and maintaining good public and community relations and providing for the widest practical and appropriate dissemination of information concerning Agency activities. Conducts education and public outreach as coordinated with the Office of Strategic Communications at NASA Headquarters prior to the award of a contract or the expenditure of funds to ensure Agency-wide priorities and consistent communications.
- i. Provides concurrence to the Agency CFO regarding the assignment, promotion, discipline, and relief of the principal financial official at DFRC. Also, provides the Agency CFO with a written evaluation of the principal financial official at DFRC, which shall be attached to that individual's annual performance appraisal.
- 5.2.2.2 Formulates and conducts piloted and unpiloted flight research and test projects in disciplinary technologies, integrated aerospace systems, and advanced concepts to meet current and future Agency missions in aeronautics, sciences, and space exploration.
- 5.2.2.3 Develops, manages, and maintains research and science platform aircraft, flight test bed aircraft, and flight facilities to support safe, timely, and cost-effective NASA flight projects and to support industry, university, and other Government agency flight programs.
- 5.2.2.4 Provides operational and technical support for the conduct of Space Shuttle and International Space Station missions and for the validation of new and experimental space exploration concepts.
- 5.2.3 SPECIAL RELATIONSHIPS.
- 5.2.3.1 Serves as a member of NASA's Strategic Management Council, Operations Management Council, and Program Management Council.
- 5.2.3.2 DFRC shares an alliance with the U.S. Air Force Flight Test Center (AFFTC) and the U.S. Air Force Research Laboratory (AFRL) at Edwards AFB to minimize infrastructure duplication and costs and to share technical and programmatic assets as opportunities arise.
- 5.2.4 LINE OF SUCCESSION. In the following order: Deputy Director, Dryden Flight Research Center; Associate Director for Operations; Associate Director for Programs; and Associate Director for Management.



5.3 John H. Glenn Research Center at Lewis Field

- 5.3.1 MISSION. The NASA Glenn Research Center (GRC) at Lewis Field develops critical space flight systems and technologies to advance the exploration of our solar system and beyond while maintaining leadership in aeronautics. In partnership with U.S. industries, universities, and other Government institutions, research and development efforts focus on advancements in propulsion, power, communications, nuclear, and human-related aerospace systems.
- 5.3.2 OVERALL RESPONSIBILITIES. All Center Directors report to the NASA Associate Administrator and are responsible for providing resources, overseeing the assignment of workforce and facilities, and managing Center operations to facilitate program and project execution while ensuring that the statutory, regulatory, and fiduciary compliance requirements for the Center are met. Center Directors also serve as an important link in the Technical Authority line. By means of the Institutional (Technical and Mission Support) Authority vested in them, Center Directors facilitate the activities of the Technical Authorities as well as Mission Support Authorities and are responsible for assuring that activities at their Centers are implemented in accordance with accepted standards of professional practice and applicable NASA requirements. Center Directors are responsible for the care of institutional assets and for establishing and maintaining the staff and their competency and the facilities required by current and future programs and projects. A key institutional role of Center Directors is that of service across Mission Directorate needs, determining how best to support the various programs and projects hosted at a given Center, in accordance with Agency priorities, and to communicate any issues to Mission Directorate AAs and higher.
- 5.3.2.1 Specifically, the Center Director for GRC:
- a. Develops and implements plans that address the organization's goals, objectives, metrics and actions needed to execute the strategic goals and outcomes in the NASA Strategic Plan.
- b. Collaborates with other Centers and with the Mission Directorates to accomplish the Agency's objectives.
- c. Provides technical and institutional resources to satisfy program requirements and schedules to include aerospace research and technology development and engineering and safety and mission assurance; ensures that human, financial, physical, and other supporting resources are properly applied to programs.
- d. Maintains a safe and healthy, environmentally friendly work environment for the workforce and ensures safety, reliability, and quality assurance for Center activities.
- e. Is the Technical Authority for all NASA projects or subprojects hosted at GRC. This role requires the Center Director to:
- 1) Exercise Technical Authority through appropriate delegation.
- 2) Convene an independent review at major milestones to ascertain technical readiness.
- 3) Approve the flight readiness of projects for which he/she is the Technical Authority.
- 4) Provide for organizational and financial independence of the Technical Authorities at GRC and implement the Dissenting Opinion Process as required in NPD 1000.0, NASA Governance and Strategic Management Handbook, and described further in NPR 7120.5. Ensure alignment with the Agency's shared core values of safety, excellence, teamwork, and integrity.
- f. Provides regular review and reporting of program and project performance in accordance with Agency program and project policies. Provides input for the Agency Program Management Council reviews.
- g. Coordinates and communicates GRC's program, project, and policy implementation activities with other Centers and Headquarters on a regular basis.
- h. Represents NASA and GRC in promoting and maintaining good public and community relations and providing for the widest practical and appropriate dissemination of information concerning space activities. Conducts education and public outreach as coordinated with the Office of Strategic Communications at NASA Headquarters prior to the award of a contract or the expenditure of funds to ensure Agency-wide priorities and consistent communications.
- i. Provides concurrence to the Agency CFO regarding the assignment, promotion, discipline, and relief of the principal financial official at GRC. Also, provides the Agency CFO with a written evaluation of the principal financial official at GRC, which shall be attached to that individual's annual performance appraisal
- j. Ensures that the workforce embraces and reflects the core values of safety, teamwork, integrity, and mission success as inherent guiding principles in all activities and decision making.

k. Ensures the establishment and maintenance of partnerships with other Government agencies, the private sector, academia, and the community to further the NASA mission.

5.3.3 SPECIAL RELATIONSHIPS.

Serves as a member of the Strategic Management Council, Operations Management Council, and Program Management Council.

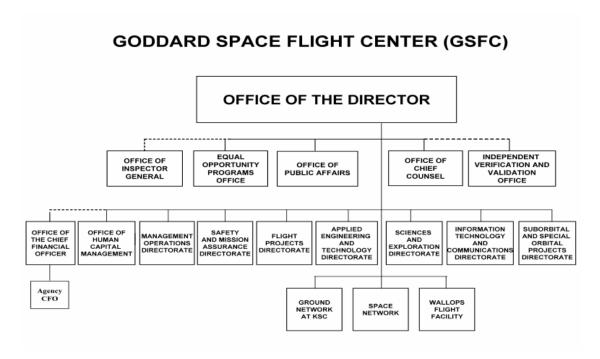
5.3.4 LINE OF SUCCESSION. In the following order: Deputy Director; Associate Director; Associate Director for Planning and Evaluation; Director of Research and Technology; Director of Engineering; Director of Space Flight Systems; Director of Facilities and Test; Director of Plum Brook Management Office; Director of Center Operations; Director of Safety and Mission Assurance; and Director of External Programs.

JOHN H. GLENN RESEARCH CENTER at LEWIS FIELD (GRC) NASA SAFETY OFFICE OF THE DIRECTOR Agency CENTER ČFO OFFICE OF THE CHIEF FINANCIAL OFFICER OFFICE OF EQUAL OFFICE OF PLUM BROOK OFFICE OF OFFICE OF THE OPPORTUNITY PROGRAMS STRATEGIC MANAGEMENT CHIEF INFORMA THE CHIEF COUNSEL CENTER SPACE FLIGHT **ENGINEERING FACILITIES AND TEST OPERATIONS** SYSTEMS DIRECTORATE DIRECTORATE DIRECTORATE DIRECTORATE SAFFTY AND RESEARCH AND **EXTERNAL** MISSION ASSURANCE DIRECTORATE TECHNOLOGY PROGRAMS DIRECTORATE

5.4 Goddard Space Flight Center

- 5.4.1 MISSION. The Goddard Space Flight Center (GSFC), located in Greenbelt, Maryland, expands the knowledge of Earth and its environment, the solar system, and the universe through observations from space. The Center also conducts scientific investigations, develops and operates space systems, and advances essential technologies.
- 5.4.2 OVERALL RESPONSIBILITIES. All Center Directors report to the NASA Associate Administrator and are responsible for providing resources, overseeing the assignment of workforce and facilities, and managing Center operations to facilitate program and project execution while ensuring that the statutory, regulatory, and fiduciary compliance requirements for the Center are met. Center Directors also serve as an important link in the Technical Authority line. By means of the Institutional (Technical and Mission Support) Authority vested in them, Center Directors facilitate the activities of the Technical Authorities as well as Mission Support Authorities and are responsible for assuring that activities at their Centers are implemented in accordance with accepted standards of professional practice and applicable NASA requirements. Center Directors are responsible for the care of institutional assets and for establishing and maintaining the staff and their competency and the facilities required by current and future programs and projects. A key institutional role of Center Directors is that of service across Mission Directorate needs, determining how best to support the various programs and projects hosted at a given Center, in accordance with Agency priorities, and communicating any issues to Mission Directorate AAs and higher.
- 5.4.2.1 Specifically, the Center Director for GSFC:
- a. Develops and implements plans that address the organization's goals, objectives, metrics, and actions needed to execute the strategic goals and outcomes in the NASA Strategic Plan.
- b. Collaborates with other Centers and with the Mission Directorates to accomplish the Agency's objectives.
- c. Provides technical and institutional resources to satisfy program requirements and schedules to include engineering, project management, and safety and mission assurance; ensures that human, financial, physical, and other supporting resources are properly applied to programs.
- d. Maintains a safe and healthy, environmentally friendly work environment for the workforce and ensures safety, reliability, and quality assurance for all Center activities.
- e. Is the Technical Authority for all NASA projects or subprojects hosted at GSFC. This role requires the Center Director to:
- 1) Exercise Technical Authority through appropriate delegation.
- 2) Convene an independent review at major milestones to ascertain technical readiness.
- 3) Approve the flight readiness of projects for which he/she is the Technical Authority.
- 4) Provide for organizational and financial independence of the Technical Authorities at GSFC and implement the Dissenting Opinion Process as required in NPD 1000.0, NASA Governance and Strategic Management Handbook, and described further in NPR 7120.5. Ensure alignment with the Agency's shared core values of safety, excellence, teamwork, and integrity.
- f. Provides regular review and reporting of program and project performance in accordance with Agency program and project policies. Provides input for the Agency Program Management Council reviews.
- g. Coordinates and communicates GSFC's program, project, and policy implementation activities with other Centers and Headquarters on a regular basis.

- h. Represents NASA and GSFC in promoting and maintaining good public and community relations and providing for the widest practical and appropriate dissemination of information concerning space activities. Conducts education and public outreach as coordinated with the Office of Strategic Communications at NASA Headquarters prior to the award of a contract or the expenditure of funds to ensure Agency-wide priorities and consistent communications.
- i. Provides concurrence to the Agency CFO regarding the assignment, promotion, discipline, and relief of the principal financial official at GSFC. Also, provides the Agency CFO with a written evaluation of the principal financial official at GSFC, which shall be attached to that individual's annual performance appraisal.
- j. Conducts research to advance scientific knowledge of the origin, evolution, and destiny of the universe, Earth, and planetary environments that support life.
- k. Designs, develops, and implements sensors, instruments, and flight missions to study the structure of the universe; its fundamental forces and matter; the processes involved in the birth, life, and death of stars, galaxies, and planets; and the chemical and biological conditions for the evolution and sustenance of life.
- I. Studies the sun, the Earth, other planets, and other bodies in the solar system to understand the impact of solar activity on the Earth's climate and human activity and on space and planetary radiation environments encountered in human exploration.
- m. Studies the Earth's atmospheric, oceanographic, cryospheric, hydrological, geologic, and biogeochemical cycles to understand the Earth as a system, to apply this understanding of the Earth to the study of the nature and evolution of other planets, and to apply discoveries from this study of other planets to an improved understanding of our own planet.
- n. Applies knowledge gained from Earth and planetary studies to search the stars for other planets that have the potential to support life. Performs theoretical research, analysis, modeling, and simulation to develop and test theories and to synthesize data from space missions and ground-based observations to develop an integrated understanding of our planet, our sun, and our universe as a system.
- o. Communicates knowledge to the public and to the education community to expand general understanding and to inspire the next generation.
- p. Develops advanced technology for future space flight missions, with emphasis on optical communications, advanced science instrumentation, data systems, robotics, and computer science.
- g. Develops and procures suborbital launch vehicles and launch services.
- r. Hosts assigned programs and projects, including the preliminary and final definition, design, development, integration and test, launch, and operations of flight and unique ground systems for: Earth-orbiting satellites, instruments, long-term flight operations, and projects using NASA Sounding Rockets and Balloons. Manages unique facilities such as the Hubble Space Telescope Science Institute.
- s. Manages NASA space flight tracking, data acquisition, communications, and data handling networks and services in support of NASA and other spacecraft. Acquires, operates, and maintains the system as a national asset.
- t. Directs mission planning and analysis, space and ground communications networks, spacecraft and payload command and control, flight dynamics, information processing, and flight missions operations and applied research and development of advanced data and telecommunications systems in support of space flight missions.
- u. Manages the Wallops Flight Facility rocket range, aircraft flight platforms, and research airport, including related tracking and data acquisition systems for conducting scientific experiments and aeronautical tests. Plans and conducts launches of scientific payloads and aeronautical tests and other research, development, and related activities as requested by elements of NASA, other Government agencies, and the worldwide scientific community.
- v. Provides services to NASA Headquarters in a variety of assigned business functions, including HQ accounting, procurement, grants, training and development, logistics, related administrative support, and Agency printing management, forms, reports, and mail management.
- w. Supports the Explorations Systems Mission Directorate in the development and operation of robotic missions, communications and navigation architectures, systems and technologies, and other supporting capabilities for the range of exploration systems.
- x. Offers software services Agency wide, including independent verification and validation of critical software under development, systems engineering support, and software assurance research in order to provide assurance that mission-critical software will operate dependably and safely.
- 5.4.3 SPECIAL RELATIONSHIPS.
- 5.4.3.1 Serves as a member of NASA's Strategic Management Council, Operations Management Council, and Program Management Council.
- 5.4.3.2 Component Facilities are the Wallops Flight Facility (WFF), the Independent Verification and Validation Facility (IV&V), the Ground Network at KSC, and the Space Network at White Sands, NM.
- 5.4.3.3 Manages the Goddard Institute for Space Studies (GISS), in affiliation with Columbia University through cooperative agreements, emphasizing a broad study of global climate change; and the Columbia Scientific Balloon Facility CSBF) at Palestine, TX for launching and tracking large, unmanned, high-altitude research balloons, and recovering scientific payloads they transport.
- 5.4.3.4 Provides design, development, testing, launch, and maintenance of a constellation of operational satellites for the National Oceanic and Atmospheric Administration, Department of Commerce. This activity is fully funded by the Department of Commerce.
- 5.4.4 LINE OF SUCCESSION. In the following order: Deputy Director, Goddard Space Flight Center; Deputy Director for Science and Technology; and Associate Director.



5.5 Jet Propulsion Laboratory

5.5.1 MISSION. The Jet Propulsion Laboratory (JPL) is a Federally Funded Research and Development Center (FFRDC) managed for NASA through a contract with the California Institute of Technology (Caltech). The FFRDC is a unique non-government entity sponsored and funded by NASA to meet specific long-term technical needs that cannot be met by any other single organization within NASA. As part of this special relationship, it is also required that JPL be operated in the public interest with objectivity and independence, be free from organizational conflicts of interest, and have full disclosure of its affairs to NASA. The contract between NASA and Caltech is the sponsoring document for JPL as an FFRDC. JPL develops and maintains technical and managerial competencies specified in the contract to perform the following current mission in support of NASA's strategic goals: (1) explore our solar system to fully understand its formation and evolution -- physical, chemical, and biological, (2) establish continuous permanent robotic presence at Mars to discover its history and habitability -- past, present, or future, and prepare for human exploration, (3) make critical measurements and models to better understand the global and regional integrated Earth system, including studies of the solid Earth, oceans, atmosphere and ecosystems, and their interactions, (4) conduct observations to search for neighboring solar systems and Earth-like planets, and help understand formation, evolution and composition of the Universe, (5) conduct communications and navigation for deep space missions, (6) provide support, particularly in robotic infrastructures and robotic precursors, that enables human exploration of the Moon, Mars and beyond, and (7) under Caltech's initiative, apply our capabilities to collaborate with other Federal and state government agencies and commercial endeavors in areas synergistic with our work performed for NASA.

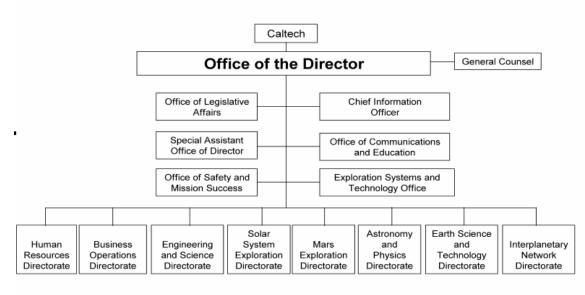
5.5.2 OVERALL RESPONSIBILITIES. Consistent with Federal Acquisition Regulation 35.017, JPL, as an FFRDC, may be allowed access to Government and supplier data, including sensitive and proprietary data, and to NASA employees and facilities beyond that which is common to the normal contractual relationship. Notwithstanding the special FFRDC relationship, the JPL Director is a Caltech employee appointed by the Caltech President and is neither a civil servant nor an agent of the Government. The JPL Director is Caltech's authorized representative for day-to-day management of JPL and Contract compliance and is therefore responsible for identifying, allocating, and dispersing resources, including overseeing the assignment of workforce and facilities, and managing JPL's assigned operations to facilitate program and project execution. The JPL Director, in accordance with accepted standards of professional practice and applicable NASA requirements, is responsible for the care of institutional assets assigned to JPL and for establishing and maintaining the staff and their competency and the facilities required by current and future programs and projects. The JPL Director determines how best to support the various programs and projects hosted at JPL, in accordance with Agency priorities, and communicates any issues, on behalf of Caltech, to Mission Directorate AAs and higher in consultation with the NASA Management Office, a NASA Headquarters government organization co-located at JPL.

5.5.2.1 Specifically, the JPL Director:

- a. Develops and implements plans that address the organization's goals, objectives, metrics, and actions needed to execute the strategic goals and outcomes in the NASA Strategic Plan. Specific NASA mission activities are assigned to and performed by JPL in accordance with the contract and various discrete task orders administered by the NASA Management Office.
- b. Collaborates with other Centers and with the Mission Directorates to accomplish the Agency's objectives.
- c. Provides technical and institutional resources to satisfy program requirements and schedules to include engineering and safety and mission assurance; ensures that human, financial, information technology, physical, and other supporting resources are properly applied to programs.
- d. Maintains a safe and healthy, environmentally friendly work environment for the workforce and ensures safety, reliability, and quality assurance for all JPL activities.
- e. Is the Technical Authority for all NASA projects or subprojects hosted at JPL. This role requires the Director to:
- 1) Exercise Technical Authority through appropriate delegation.
- 2) Convene an independent review at major milestones to ascertain technical readiness.
- 3) Approve the flight readiness of projects for which he/she is the Technical Authority.
- 4) Provide for organizational and financial independence of the Technical Authorities at JPL and implement the Dissenting Opinion Process as required in NPD 1000.0, NASA Governance and Strategic Management Handbook, and described further in NPR 7120.5. Ensure alignment with the Agency's shared core values of safety, excellence, teamwork, and integrity.
- f. Provides regular review and reporting of program and project performance in accordance with Agency program and project policies. Provides input for the Agency Program Management Council reviews as requested by NASA Headquarters senior management.
- g. Coordinates and communicates JPL's program, project, and policy implementation activities with NASA Centers and Headquarters on a regular basis as requested by NASA Headquarters offices.

- h. Represents JPL in promoting and maintaining good public and community relations and providing for the widest practical and appropriate dissemination of information concerning space activities. Conducts education and public outreach as coordinated with the Office of Strategic Communications at NASA Headquarters prior to the award of a contract or the expenditure of funds to ensure Agency-wide priorities and consistent communications.
- i. Supports Agency CFO regarding JPL's financial performance.
- j. Is responsible for implementing missions contractually assigned to JPL, including achieving mission success and ensuring safety of personnel and NASA mission hardware.
- k. Serves as a non-Government special member (non-voting) of NASA's Strategic Management Council, Operations Management Council, and Program Management Council
- 5.5.3 SPECIAL RELATIONSHIPS ESTABLISHED THROUGH CONTRACTUAL ARRANGEMENTS.
- 5.5.3.1 JPL is a lead organization for robotic science missions conducted in space. Maintains vertically-integrated competencies to execute the various programs and projects listed below including: program planning, strategy, and budgeting support; science community interface; concept engineering, trades, and analysis; development of enabling technologies; mission, system, and instrument design, analysis, development, fabrication, assembly, test and operations; industry contracting; and science data analysis.
- 5.5.3.2 JPL manages several programs for NASA: Mars exploration, search for exoplanets, Deep Space Network, and New Millennium technology. Responsibilities include: strategic planning, analysis, and budgeting; technology development and infusion; and program integration and oversight including inter-project interfaces (e.g., Mars communication network). JPL supports HQ and science community strategic planning in solar system exploration.
- 5.5.3.3 JPL is the lead organization for assigned and flagship missions in: Mars, solar system, exoplanet discovery/characterization. JPL is the lead organization for enabling technologies and capabilities in interferometric and coronagraphic exoplanet detection and characterization; large, segmented, and adaptive optics; advanced microdevices including focal plane arrays, bolometers, microfluidics; deeps-space communications, mission design, and navigation;
- 5.5.3.4 JPL is the lead organization for key NASA science domains and the technologies that enable them: solid-Earth geophysics, oceanography, and radar missions.
- 5.5.3.5 JPL supports Constellation in enabling areas: systems engineering; precision-landing and planet-surface mobility; multi-asset, multi-mission operations; and robotic systems to enhance astronaut sensing, awareness, and operations efficiency.
- 5.5.3.6 JPL is the lead organization for NASA's program in the Search for Exo-solar planets.
- 5.5.3.7 JPL manages the operation of the Deep Space Network providing uplink and downlink communication for all of NASA's deep space missions. 5.5.3.8 JPL implements Agency policy and direction regarding investments, facilities, and personnel competencies, coordinating through the appropriate Agency forums. 5.5.3.9 JPL promotes the Agency's strategic goals and, with the common purpose of achieving NASA's Vision for Space Exploration and mission, supports all the Agency's Centers and Mission Directorates. 5.5.3.10 JPL through its connection with Caltech represents a unique educational and research resource for NASA.
- 5.5.4 LINE OF SUCCESSION. JPL is an FFRDC, and the JPL staff members are not government employees. The described JPL organization and line of succession are not part of the NASA institutional process and are shown here for insight into the contractor's operations and for informational purpose only. In the following order: Deputy Director, JPL; Associate Director for Flight Projects and Mission Success; Associate Director for Project Formulation and Strategy; and Associate Director for Business Operations.

JET PROPULSION LABORATORY (JPL)



5.6 Lyndon B. Johnson Space Center

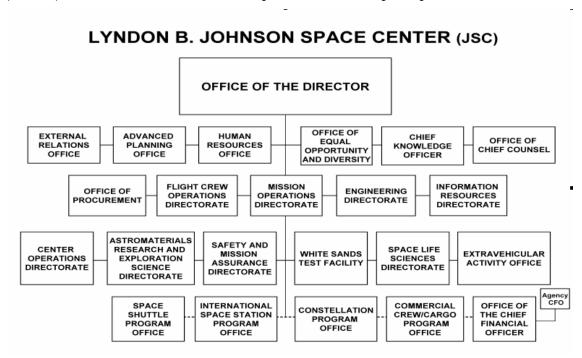
5.6.1 MISSION. The Johnson Space Center (JSC) role in NASA is human space flight. JSC hosts and staffs program and project offices; selects and trains astronauts; manages and conducts projects that build, test, and integrate human-rated systems for transportation, habitation, and working in space; and plans and operates human space flight missions. The work requires a comprehensive understanding of space and planetary environments, as well as research into the effects of those environments on human physiology. It also requires that JSC develop technology to sustain and preserve life; maintain a supply chain to design, manufacture and test flight products; select, train, and provide medical care to those people who fly space missions; and continue to provide administrative mission support services. JSC is currently hosting, staffing, and supporting

the Space Shuttle Program, the International Space Station Program, the Constellation Program, the Human Research Program (HRP) Program, and the Commercial Crew and Cargo Program.

- 5.6.2 OVERALL RESPONSIBILITIES. All Center Directors report to the NASA Associate Administrator and are responsible for providing resources, overseeing the assignment of workforce and facilities, and managing Center operations to facilitate program and project execution while ensuring that the statutory, regulatory, and fiduciary compliance requirements for the Center are met. Center Directors also serve as an important link in the Technical Authority line. By means of the Institutional (Technical and Mission Support) Authority vested in them, Center Directors facilitate the activities of the Technical Authorities as well as Mission Support Authorities and are responsible for assuring that activities at their Centers are implemented in accordance with accepted standards of professional practice and applicable NASA requirements. Center Directors are responsible for the care of institutional assets and for establishing and maintaining the staff and their competency and the facilities required by current and future programs and projects. A key institutional role of Center Directors is that of service across Mission Directorate needs, determining how best to support the various programs and projects hosted at a given Center, in accordance with Agency priorities, and to communicate any issues to Mission Directorate AAs and higher.
- 5.6.2.1 Specifically, the Center Director for JSC:
- a. Develops and implements plans that address the organization's goals, objectives, metrics, and actions needed to execute the strategic goals and outcomes in the NASA Strategic Plan.
- b. Collaborates with other Centers and with the Mission Directorates to accomplish the Agency's objectives.
- c. Provides technical and institutional resources to satisfy program requirements and schedules to include engineering, human health and performance and safety and mission assurance; ensures that human, financial, physical, and other supporting resources are properly applied to programs.
- d. Maintains a safe and healthy, environmentally friendly work environment for the workforce and ensures safety, reliability, and quality assurance in all Center activities.
- e. Is the Technical Authority for all NASA projects or subprojects hosted at JSC. This role requires the Center Director to:
- 1) Exercise Technical Authority through appropriate delegation.
- 2) Convene an independent review at major milestones to ascertain technical readiness.
- 3) Approve the flight readiness of projects for which he/she is the Technical Authority.
- 4) Provide for organizational and financial independence of the Technical Authorities at JSC and implement the Dissenting Opinion Process as required in NPD 1000.0, NASA Governance and Strategic Management Handbook, and described further in NPR 7120.5. Ensure alignment with the Agency's shared core values of safety, excellence, teamwork, and integrity.
- f. Provides regular review and reporting of program and project performance in accordance with Agency program and project policies. Provides input for the Agency Program Management Council reviews.
- g. Coordinates and communicates JSC's program, project, and policy implementation activities with other Centers and Headquarters on a regular basis.
- h. Represents NASA and JSC in promoting and maintaining good public and community relations and providing for the widest practical and appropriate dissemination of information concerning space activities. Conducts education and public outreach as coordinated with the Office of Strategic Communications at NASA Headquarters prior to the award of a contract or the expenditure of funds to ensure Agency-wide priorities and consistent communications.
- i. Provides concurrence to the Agency CFO regarding the assignment, promotion, discipline, and relief of the principal financial official at JSC. Also, provides the Agency CFO with a written evaluation of the principal financial official at JSC, which shall be attached to that individual's annual performance appraisal.
- j. While maintaining the capability, JSC manages and supports space vehicle and space system development programs as follows:
- 1) Provides the workforce and associated development, design, crew health and performance support, and sustaining engineering support to the Space Shuttle, ISS, Constellation Program, and Human Research Program (HRP), as well as the Commercial Crew and Cargo Program.
- 2) Manages assigned projects and technologies as well as provides vehicle, system, subsystem, and human system expertise that are critical to both the Agency and JSC for future roles in space utilization and exploration.
- 3) Provides independent Technical Authority, Safety and Mission Assurance Authority, and Health and Medical Authority for resident projects.
- k. Plans and conducts space flight, crew, and aircraft operations as follows:
- 1) Provides operations support environment, command and control facilities, and operations data processing and planning systems.
- 2) Conducts flight operations for the Space Shuttle Program and ISS Program Office, including providing the flight and support environment to satisfy mission objectives, ensure crew health, performance, and mission safety.
- 3) Provides Agency-wide project management of Extravehicular Activity (EVA) services to the Space Shuttle and ISS programs and support for future programs requiring low-g (gravity) or surface EVA capabilities, including all EVA-related research and development activities.
- 4) Manages flight crew operations including selection training and medical care.
- 5) Conducts aircraft operations in support of astronaut flight readiness training, high-altitude research, low-g flight evaluations, orbiter transportation, Agency logistics, and administrative functions.
- I. Plans and conducts ground-based and flight research programs and operations in the fields of Human Health and Performance and Astromaterials Research and Exploration Sciences (ARES).
- 1) Plans and conducts Human Health and Performance efforts in support of human space exploration including:
- a) Integrating all human system activities in support of human space exploration.
- b) Providing ground-based and flight operations in space medicine; environmental factors; and human factors and habitability.
- c) Leading the Human Research Program in the fields of human adaptation, environmental factors and human factors research, and countermeasure technology development.
- d) Developing and integrating scientific, medical, and technological experiments and payloads to be flown on the Space Shuttle, ISS, and future exploration vehicles.
- 2) Plans and conducts Astromaterials Research and Exploration Sciences (ARES) efforts including lunar and planetary science and astromaterials science and curation; micrometeoroid and orbital debris operations and research; and earth sciences observations in support of human space flight.

m. Integrates all JSC implementing Center requirements and objectives, including schedules, budgets, and technical requirements (human health and performance standards, habitability, human factors and environmental factors standards, safety and reliability standards) and also ensures that resources infrastructure support are properly applied to programs and projects.

- 5.6.3 SPECIAL RELATIONSHIPS.
- 5.6.3.1 Serves as a member of NASA's Strategic Management Council, Operations Management Council, and Program Management Council.
- 5.6.3.2 Promotes the Agency's strategic goals and, with the common purpose of achieving NASA's Vision for Space Exploration and mission, supports all the Agency's Centers and Mission Directorates.
- 5.6.3.3 Provides the independent technical authority, independent safety and mission assurance, project management, and engineering support for resident programs and projects, while program authority is retained at NASA Headquarters.
- 5.6.3.4 Provides matrixed support to White Sands Test Facility (WSTF), a JSC component facility located in New Mexico. The Manager of the White Sands Test Facility serves as the senior JSC official interfacing with local and state governments and other groups on subjects relating to NASA and the White Sands Test Facility.
- 5.6.4 LINE OF SUCCESSION. In the following order: Deputy Director, Johnson Space Center; Associate Director (Management); Associate Director (Technical); Chief of Staff; Director, Advanced Planning Office; and Director, Engineering.

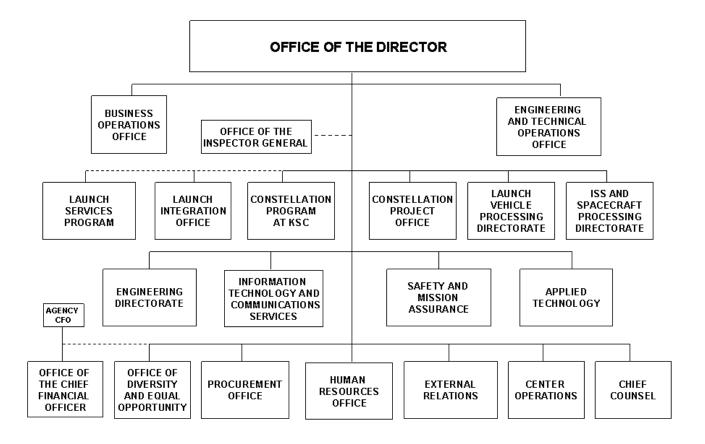


5.7 John F. Kennedy Space Center

- 5.7.1 MISSION. The Kennedy Space Center (KSC) is responsible for the preflight processing, launch, landing, and recovery of the Agency's human-rated spacecraft and launch vehicles; the assembly, integration, and processing of International Space Station (ISS) elements and flight experiments; and the acquisition and management of Expendable Launch Vehicles (ELV) for other Agency spacecraft. KSC leads the development of ground systems supporting human-rated spacecraft and launch vehicle and lunar In-Situ Resource Utilization hardware elements. KSC hosts the manufacturing of the Orion Crew Exploration Vehicles.
- 5.7.2 OVERALL RESPONSIBILITIES. All Center Directors report to the NASA Associate Administrator and are responsible for providing resources, overseeing the assignment of workforce and facilities, and managing Center operations to facilitate program and project execution while ensuring that the statutory, regulatory, and fiduciary compliance requirements for the Center are met. Center Directors also serve as an important link in the Technical Authority line. By means of the Institutional (Technical and Mission Support) Authority vested in them, Center Directors facilitate the activities of the Technical Authorities as well as Mission Support Authorities and are responsible for assuring that activities at their Centers are implemented in accordance with accepted standards of professional practice and applicable NASA requirements. Center Directors are responsible for the care of institutional assets and for establishing and maintaining the staff and their competency and the facilities required by current and future programs and projects. A key institutional role of Center Directors is that of service across Mission Directorate needs, determining how best to support the various programs and projects hosted at a given Center, in accordance with Agency priorities, and to communicate any issues to Mission Directorate AAs and higher.
- 5.7.2.1 Specifically, the Center Director for KSC:
- a. Develops and implements plans that address the organization's goals, objectives, metrics, and actions needed to execute the strategic goals and outcomes in the NASA Strategic Plan.
- b. Collaborates with other Centers and with the Mission Directorates to accomplish the Agency's objectives.
- c. Provides technical and institutional resources to satisfy program requirements and schedules to include engineering and safety and mission assurance; ensures that human, financial, physical, and other supporting resources are properly applied to programs.
- d. Maintains a safe and healthy, environmentally friendly work environment for the workforce and ensures safety, reliability, and quality assurance for all Center activities.
- e. Is the Technical Authority for all NASA projects or subprojects hosted at KSC. This role requires the Center Director to:
- 1) Exercise Technical Authority through appropriate delegation.
- 2) Convene an independent review at major milestones to ascertain technical readiness.

- 3) Approve the flight readiness of projects for which he/she is the Technical Authority.
- 4) Provide for organizational and financial independence of the Technical Authorities at KSC and implement the Dissenting Opinion Process as required in NPD 1000.0, NASA Governance and Strategic Management Handbook, and described further in NPR 7120.5. Ensure alignment with the Agency's shared core values of safety, excellence, teamwork, and integrity.
- f. Provides regular review and reporting of program and project performance in accordance with Agency program and project policies. Provides input for the Agency Program Management Council reviews.
- g. Coordinates and communicates KSC's program, project, and policy implementation activities with other Centers and Headquarters on a regular basis.
- h. Represents NASA and KSC in promoting and maintaining good public and community relations and providing for the widest practical and appropriate dissemination of information concerning space activities. Conducts education and public outreach as coordinated with the Office of Strategic Communications at NASA Headquarters prior to the award of a contract or the expenditure of funds to ensure Agency-wide priorities and consistent communications.
- i. Provides concurrence to the Agency CFO regarding the assignment, promotion, discipline, and relief of the principal financial official at KSC. Also, provides the Agency CFO with a written evaluation of the principal financial official at KSC, which shall be attached to that individual's annual performance appraisal. j. Provides space systems processes, testing, and launch and recovery techniques and applies new technologies to support extended human exploration of space.
- k. Designs, constructs, operates, maintains, and phases out or disposes of KSC ground facilities, ground support equipment, and other systems to meet customer launch site needs, including using innovative and integrated science and engineering techniques that enable safer, lower cost of access to space, and extended human exploration.
- I. Collaborates with space flight vehicle designers at other NASA Centers and with industry to ensure lessons learned from processing of launch vehicles are incorporated into future designs to improve safety, maintainability, supportability, reliability, and operability in an effort to reduce the life-cycle cost of operating a human space flight system.
- m. Operates and maintains ground support equipment, facilities, and logistics support for NASA launch and recovery activities conducted at KSC, Cape Canaveral Air Force Station, Vandenberg Air Force Base, and Space Shuttle orbiter contingency sites worldwide.
- n. Conducts the final preparation and integrated checkout of launch vehicles, spacecraft, payloads, launch facilities, ground support equipment, and launch and recovery systems operations at all launch sites referenced in paragraph 5.6.2.1.m.
- o. Provides the launch site support, ground processing, and integration of ISS elements, logistics, and research experiments.
- p. Develops, tests, and deploys technologies to support NASA programs and provides test beds, laboratories, tools, and expertise in the related areas.
- 5.7.3 SPECIAL RELATIONSHIPS.
- 5.7.3.1 Serves as a member of NASA's Strategic Management Council, Operations Management Council, and Program Management Council.
- 5.7.3.2 KSC implements Agency policy and direction regarding investments, facilities, and personnel competencies, especially in the context of resolving disputes, coordinating through the appropriate Agency forums.
- 5.7.3.3 KSC supports the Launch Services Program, which provides acquisition and technical management of commercially available launch services for the Agency, with engineering, SMA, payload processing, institutional and business resources, capabilities, and expertise.
- 5.7.3.4 KSC is a supporting Center to the Space Shuttle program in the areas of preflight and launch and recovery operations, flight hardware spares, and launch site logistics. This includes test, processing, and integration of Space Shuttle elements. KSC also provides certain logistics services for other NASA Centers supporting the Space Shuttle program.
- 5.7.3.5 KSC is a supporting Center for the ISS program in the areas of preflight and launch and recovery operations, launch site logistics support, resupply, and customer utilization. This includes the integration, testing, and processing for research experiments and other payloads for the ISS.
- 5.7.3.6 KSC is a supporting Center for the Constellation Program, providing leadership in the design, development, activation, and operation of facility and ground systems to process, integrate, test, launch, and recover the Constellation flight hardware. Ground processing operations expertise is provided to the design and development of spacecraft and launch systems.
- 5.7.3.7 KSC implements Center activities assigned by the Agency, including NASA's Contracting Intern Program, Recycling and Affirmative Procurement, NASA Acquisition Pollution Prevention, Specifications Kept Intact, Security/Law Enforcement Standards and Training, Fire Protection Program, Metrology and Calibration, Range Safety, ELV Payload Safety, NASA-wide Aerospace Fluids Acquisition and Management, NASA Special Assigned Aircraft Mission and Opportune transportation, and NASA Emergency Preparedness Program.
- 5.7.3.8 KSC maintains productive partnerships with the National Park Service and U.S. Fish and Wildlife Service, US Air Force (45th and 30th Space Wings), U.S. Navy, National Reconnaissance Office, U.S. Army, Department of Energy, Department of Transportation, National Oceanic and Atmospheric Administration, and the Federal Aviation Administration, which share land and resources, and provides support across Mission Directorate needs.
- 5.7.3.9 KSC manages the KSC Exchange Council, its recreational areas (Kennedy Athletic, Recreation, and Social Parks, exercise facilities, etc.) and Exchange services (Exchange stores, Child Development Center, service station, etc.) for improved health, morale, and welfare of the workforce.
- 5.7.3.10 KSC partners with Enterprise Florida, Space Florida, Economic Development Commission of Florida's Space Coast, Brevard Workforce Development Board, and other Federal, state, and local government to explore new business and leverage resources to achieve the Agency's strategic goals.
- 5.7.3.11 KSC partners with the KSC Visitor Complex, Astronaut Scholarship Foundation, Astronaut Memorial Foundation, film and documentary industry, members from various media forms, academia, and professional societies to promote and maintain good public and community relations and provides for the widest practical and appropriate access to KSC for dissemination of information and awareness concerning space activities.
- 5.7.4 LINE OF SUCCESSION. In the following order: Deputy Director, Kennedy Space Center; Associate Director for Engineering and Technical Operations; Associate Director for Business Operations; Director, Launch Vehicle Processing Directorate; Director, ISS and Spacecraft Processing Directorate; and Director, Constellation Project Office.

JOHN F. KENNEDY SPACE CENTER (KSC)

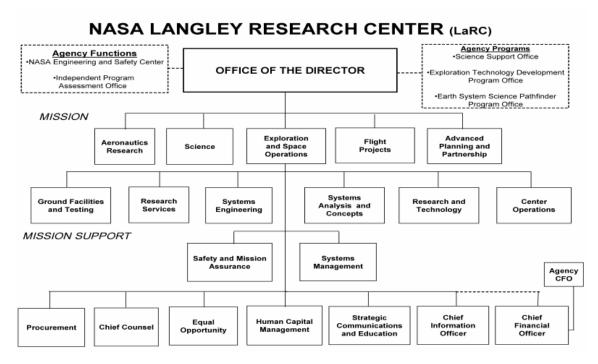


5.8 Langley Research Center

- 5.8.1 MISSION. The Langley Research Center (LaRC) pioneers the future in space exploration, scientific discovery, and aeronautics through research and development of technology, scientific instruments and investigations, and exploration systems.
- 5.8.2 OVERALL RESPONSIBILITIES. All Center Directors report to the NASA Associate Administrator and are responsible for providing resources, overseeing the assignment of workforce and facilities, and managing Center operations to facilitate program and project execution while ensuring that the statutory, regulatory, and fiduciary compliance requirements for the Center are met. Center Directors also serve as an important link in the Technical Authority line. By means of the Institutional (Technical and Mission Support) Authority vested in them, Center Directors facilitate the activities of the Technical Authorities as well as Mission Support Authorities and are responsible for assuring that activities at their Centers are implemented in accordance with accepted standards of professional practice and applicable NASA requirements. Center Directors are responsible for the care of institutional assets, and for establishing and maintaining the staff and their competency and the facilities required by current and future programs and projects. A key institutional role of Center Directors is that of service across Mission Directorate needs, determining how best to support the various programs and projects hosted at a given Center, in accordance with Agency priorities, and to communicate any issues to Mission Directorate AAs and higher.
- 5.8.2.1 Specifically, the Center Director for LaRC:
- a. Develops and implements plans that address the organization's goals, objectives, metric, and actions needed to execute the strategic goals and outcomes in the NASA Strategic Plan.
- b. Collaborates with other Centers and with the Mission Directorates to accomplish the Agency's objectives.
- c. Provides technical and institutional resources to satisfy program requirements and schedules to include engineering and safety and mission assurance; ensures that human, financial, physical, and other supporting resources are properly applied to programs.
- d. Maintains a safe and healthy, environmentally friendly work environment for the workforce and ensures safety, reliability, and quality assurance in all Center activities.
- e. Is the Technical Authority for all NASA projects or subprojects hosted at LaRC. This role requires the Center Director to:
- 1) Exercise Technical Authority through appropriate delegation.
- 2) Convene an independent review at major milestones to ascertain technical readiness.
- 3) Approve the flight readiness of projects for which he/she is the Technical Authority.
- 4) Provide for organizational and financial independence of the Technical Authorities at the LaRC and implement the Dissenting Opinion Process as required in NPD 1000.0, NASA Governance and Strategic Management Handbook, and described further in NPR 7120.5. Ensure alignment with the Agency's shared core values of safety, excellence, teamwork and integrity.
- f. Provides regular review and reporting of program and project performance in accordance with Agency program and project policies. Provides

input for the Agency Program Management Council reviews.

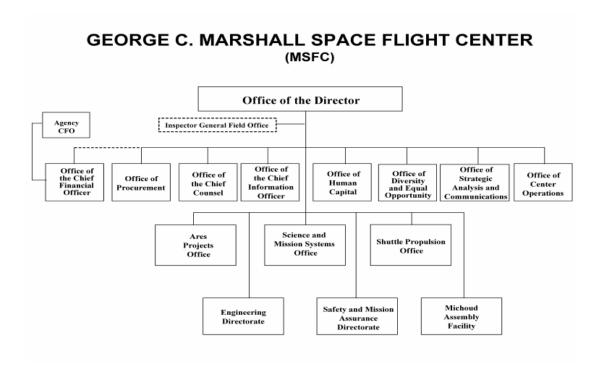
- g. Coordinates and communicates LaRC's program, project, and policy implementation activities with other Centers and Headquarters on a regular basis.
- h. Represents NASA and LaRC in promoting and maintaining good public and community relations and providing for the widest practical and appropriate dissemination of information concerning space activities. Conducts education and public outreach as coordinated with the Office of Strategic Communications at NASA Headquarters prior to the award of a contract or the expenditure of funds to ensure Agency-wide priorities and consistent communications.
- i. Provides concurrence to the Agency CFO regarding the assignment, promotion, discipline, and relief of the principal financial official at LaRC. Also, provides the Agency CFO with a written evaluation of the principal financial official at LaRC, which shall be attached to that individual's annual performance appraisal.
- j. Provides and manages an institutional base for long-term stewardship of a national capability in support of NASA, other Federal and state agencies, and components of U.S. industry engaged in advanced research and technology in aeronautics and space. Additionally, extends these technologies to non-aerospace applications which enhance the U.S. economic posture.
- k. Delivers research and development solutions across Exploration and Space Operations, Science, and Aeronautics related to lunar development and planetary exploration, aeronautics for space access, flight through all planetary atmospheres, civil and military aviation, measuring and understanding the Earth's changing atmosphere, and characterizing other planetary atmospheres. Provides an integration of analysis, computation, experimental testing, and facilities, combined with scientific expertise to solve challenging technical problems by applying core competencies in aerosciences, structural and material concepts, systems analysis, and atmospheric characterization.
- 5.8.3 SPECIAL RELATIONSHIPS. Serves as a member of NASA's Strategic Management Council, Operations Management Council, and Program Management Council.
- 5.8.4 LINE OF SUCCESSION. In the following order: Deputy Director, Langley Research Center; Associate Director, Langley Research Center; and Director for Research and Technology, Langley Research Center.



5.9 George C. Marshall Space Flight Center

- 5.9.1 MISSION. The Marshall Space Flight Center (MSFC) performs systems engineering and integration for both human and robotic missions. Marshall performs engineering design, development, and integration of the systems required for space operations, exploration, and science. The Center also manages the Michoud Assembly Facility, which supports the unique manufacturing and assembly needs of current and future NASA programs, and provides critical telecommunications and business systems for the Agency.
- 5.9.2 OVERALL RESPONSIBILITIES. All Center Directors report to the NASA Associate Administrator and are responsible for providing resources, overseeing the assignment of workforce and facilities, and managing Center operations to facilitate program and project execution while ensuring that the statutory, regulatory, and fiduciary compliance requirements for the Center met. Center Directors also serve as an important link in the Technical Authority line. By means of the Institutional (Technical and Mission Support) Authority vested in them, Center Directors facilitate the activities of the Technical Authorities as well as Mission Support Authorities and are responsible for assuring that activities at their Centers are implemented in accordance with accepted standards of professional practice and applicable NASA requirements. Center Directors are responsible for the care of institutional assets, and for establishing and maintaining the staff and their competency and the facilities required by current and future programs and projects. A key institutional role of Center Directors is that of service across Mission Directorate needs, determining how best to support the various programs and projects hosted at a given Center, in accordance with Agency priorities, and to communicate any issues to Mission Directorate AAs and higher.
- 5.9.2.1 Specifically, the Center Director for MSFC:
- a. Develops and implements plans that address the organization's goals, objectives, metrics, and actions needed to execute the strategic goals and outcomes in the NASA Strategic Plan.
- b. Collaborates with other Centers and with the Mission Directorates to accomplish the Agency's objectives.
- c. Provides technical and institutional resources to satisfy program requirements and schedules to include engineering and safety and mission assurance; ensures that human, financial, physical, and other supporting resources are properly applied to programs.
- d. Maintains a safe and healthy, environmentally friendly work environment for the workforce and ensures safety, reliability, and quality assurance

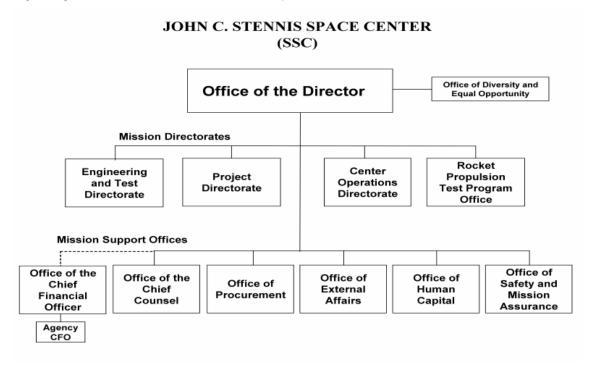
- in all Center activities.
- e. Is the Technical Authority for all NASA projects or subprojects hosted at MSFC. This role requires the Center Director to:
- 1) Exercise Technical Authority through appropriate delegation.
- 2) Convene an independent review at major milestones to ascertain technical readiness.
- 3) Approve the flight readiness of projects for which he/she is the Technical Authority.
- 4) Provide for organizational and financial independence of the Technical Authorities at the MSFC and implement the Dissenting Opinion Process as required in NPD 1000.0, NASA Governance and Strategic Management Handbook, and described further in NPR 7120.5. Ensure alignment with the Agency's shared core values of safety, excellence, teamwork and integrity.
- f. Provides regular review and reporting of program and project performance in accordance with Agency program and project policies. Provides input for the Agency Program Management Council reviews.
- g. Coordinates and communicates MFSC's program, project, and policy implementation activities with other Centers and Headquarters on a regular basis.
- h. Represents NASA and MSFC in promoting and maintaining good public and community relations and providing for the widest practical and appropriate dissemination of information concerning space activities. Conducts education and public outreach as coordinated with the Office of Strategic Communications at NASA Headquarters prior to the award of a contract or the expenditure of funds to ensure Agency-wide priorities and consistent communications.
- i. Provides concurrence to the Agency CFO regarding the assignment, promotion, discipline, and relief of the principal financial official at MSFC. Also, provides the Agency CFO with a written evaluation of the principal financial official at MSFC, which shall be attached to that individual's annual performance appraisal.
- j. Ensures alignment of MSFC implementing plans with the Agency's strategic direction by sustaining the institutional capability to analyze, plan, evaluate, and communicate performance.
- 5.9.2.2 MSFC's institutional capabilities deliver the following solutions:
- a. Propulsion and Transportation Systems Marshall manages key propulsion hardware and technologies that will maintain the Space Shuttle's safe operation until its retirement in 2010. Under NASA's Constellation Program, the Center oversees the design, development, and delivery of the new Ares I and Ares V crew and cargo launch vehicles. Marshall further provides solid rocket booster engineering and expertise to the Orion launch abort system. The Center is also a key partner in the development of the Altair Lunar Lander.
- b. Human Exploration Systems and Operations Marshall develops and manages human space systems that not only sustain humans in space, but also enable scientific observations and resource exploration. Marshall plays a key role in coordinating and supporting U.S. and international experiment activities on the station through the Payload Operations Center, NASA's primary International Space Station (ISS) science command post. Marshall engineers also developed and support key components of the space station's life support system, the oxygen generation and water recovery systems, and continue efforts to complete the Node 2 and Node 3 station elements. Marshall also manages the Multi-Purpose Logistics Modules (pressurized "moving vans") which transport equipment, experiments and supplies to and from the station. As a precursor to human exploration beyond low earth orbit, Marshall manages the Lunar Precursor Robotic Program, which will launch two missions, the Lunar Reconnaissance Orbiter and the Lunar Crater Observing and Sensing Satellite, to the Moon in 2009.
- c. Scientific Spacecraft, Instruments, and Research -- The Center's expertise in planetary/lunar, Earth, and high-energy sciences enables programs such as the Chandra X-ray Telescope, Gamma-ray Large Area Space Telescope (GLAST) Burst Monitor, Hinode solar research satellite, Discovery and New Frontiers solar system exploration programs, multi-agency and multi-country partnerships for Earth observations (SERVIR), short-term weather prediction research and transition to operations (SPORT), lightening and hurricane research, and the International Lunar Network (ILN).
- 5.9.2.3 The Center provides the capability to support the following resident projects and activities:
- a. Space Shuttle Propulsion Project Offices.
- b. Operation of the Payload Operation Center for management of science aboard the International Space Station.
- c. Ares Projects Office, including full responsibility for developing and producing the Ares I Crew Launch Vehicle and Ares V Cargo Launch Vehicle.
- d. Lunar Precursor Robotic Program Office, Lunar Science Program Office, and International Lunar Network Mission Project Office.
- e. Discovery and New Frontiers program, Chandra X-ray Observatory, and Hinode.
- 5.9.3 SPECIAL RELATIONSHIPS.
- 5.9.3.1 Serves as a member of NASA's Strategic Management Council, Operations Management Council, and Program Management Council.
- 5.9.3.2 Provides program and project management, systems, and engineering expertise to Michoud Assembly Facility and other NASA Centers.
- 5.9.3.3 Provides scientific and technical research knowledge to appropriate Agency Mission Directorates and other NASA Centers.
- 5.9.3.4 Provides Agency management and support in technical areas such as network communications, the NASA Data Center, the Integrated Enterprise Management Program, and Agency enterprise applications, including the personnel, logistics, and the NASA Operational Environment Team
- 5.9.3.5 Oversees the National Space Science and Technology Center, a collaborative research and education initiative, in cooperation with the State of Alabama, other Government agencies, academia, and industry.
- 5.9.4 LINE OF SUCCESSION. In the following order: Deputy Director, Marshall Space Flight Center; Associate Director, Marshall Space Flight Center; Director, Engineering Directorate, Marshall Space Flight Center; and Director, Shuttle Propulsion Office, Marshall Space Flight Center.



5.10 John C. Stennis Space Center

- 5.10.1 MISSION. The Stennis Space Center (SSC) implements NASA's mission in areas assigned by three Agency Mission Directorates. The Center manages and operates Rocket Propulsion Test facilities and support infrastructure for the Space Operations and Exploration Systems Mission Directorates. Serves as Systems Engineering Center for and manages assigned Applied Sciences program activities for the Science Mission Directorate. SSC serves as Federal manager and host Agency of a major Government multi-agency Center.
- 5.10.2 OVERALL RESPONSIBILITIES. All Center Directors report to the NASA Associate Administrator and are responsible for providing resources, overseeing the assignment of workforce and facilities, and managing Center operations to facilitate program and project execution while ensuring that the statutory, regulatory, and fiduciary compliance requirements for the Center are met. Center Directors also serve as an important link in the Technical Authority line. By means of the Institutional (Technical and Mission Support) Authority vested in them, Center Directors facilitate the activities of the Technical Authorities as well as Mission Support Authorities and are responsible for assuring that activities at their Centers are implemented in accordance with accepted standards of professional practice and applicable NASA requirements. Center Directors are responsible for the care of institutional assets, and for establishing and maintaining the staff and their competency and the facilities required by current and future programs and projects. A key institutional role of Center Directors is that of service across Mission Directorate needs, determining how best to support the various programs and projects hosted at a given Center, in accordance with Agency priorities, and to communicate any issues to Mission Directorate AAs and higher.
- 5.10.2.1 Specifically, the Center Director for SSC:
- a. Develops and implements plans that address the organization's goals, objectives, metrics, and actions needed to execute the strategic goals and outcomes in the NASA Strategic Plan.
- b. Collaborates with other Centers and with the Mission Directorates to accomplish the Agency's objectives.
- c. Provides technical and institutional resources to satisfy program requirements and schedules to include engineering and safety and mission assurance; ensures that human, financial, physical, and other supporting resources are properly applied to programs.
- d. Maintains a safe and healthy, environmentally friendly work environment for the workforce and ensures safety, reliability, and quality assurance in all Center activities.
- e. Is the Technical Authority for all NASA projects or subprojects hosted at SSC. This role requires the Center Director to:
- 1) Exercise Technical Authority through appropriate delegation.
- 2) Convene an independent review at major milestones to ascertain technical readiness.
- 3) Approve the flight readiness of projects for which he/she is the Technical Authority.
- 4) Provide for organizational and financial independence of the Technical Authorities at the Stennis Space Center and implement the Dissenting Opinion Process as required in NPD 1000.0 NASA Governance and Strategic Management Handbook, and described further in NPR 7120.5. Ensure alignment with the Agency's shared core values of safety, excellence, teamwork and integrity.
- f. Provides regular review and reporting of program and project performance in accordance with Agency program and project policies. Provides input for the Agency Program Management Council reviews.
- g. Coordinates and communicates SSC's program, project, and policy implementation activities with other Centers and Headquarters on a regular basis
- h. Represents NASA and SSC in promoting and maintaining good public and community relations and providing for the widest practical and appropriate dissemination of information concerning space activities. Conducts education and public outreach as coordinated with the Office of Strategic Communications at NASA Headquarters prior to the award of a contract or the expenditure of funds to ensure Agency-wide priorities and consistent communications.
- i. Provides concurrence to the Agency CFO regarding the assignment, promotion, discipline, and relief of the principal financial official at SSC. Also, provides the Agency CFO with a written evaluation of the principal financial official at SSC, which shall be attached to that individual's annual performance appraisal.
- j. Manages, operates, develops, and maintains NASA Rocket Propulsion Test capabilities and associated processes and procedures.

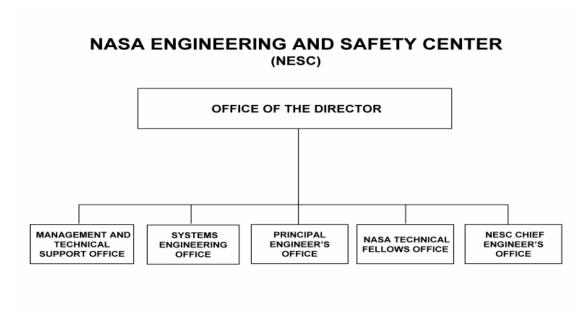
- k. Provides test operations services to NASA, the Department of Defense, commercial, and other customers for the development of propulsion systems, engines, subsystems, and components.
- I. Accomplishes development, flight certification, and acceptance testing of the Space Shuttle Main Engines and derivatives.
- m. Accomplishes assembly, development, flight certification, and acceptance testing of Constellation Program hardware, including components, engines, and stages.
- n. Manages NASA's effort to extend the benefits of science, technology, and information investments by applying a systems engineering approach to advance Federal partners' decision support tools that serve the Nation.
- o. Manages SSC as an integrated multiagency base of operations for the programmatic benefit of NASA and the other Federal, state and commercial entities.
- p. Develops and executes an Implementation Plan that delineates a structure and process which demonstrates organizational independence of technical/engineering authority from program/project management.
- 5.10.3 SPECIAL RELATIONSHIPS.
- 5.10.3.1 Serves as a member of NASA's Strategic Management Council, Operations Management Council, and Program Management Council.
- 5.10.3.2 Provides support to program management responsibility of managing all of the Agency's rocket propulsion test assets. Provides support to Rocket Propulsion Test Management Board (RPTMD) Level II and establishes and manages Level III responsibilities.
- 5.10.3.3 Provides program management responsibility for applying a systems engineering approach to benchmark the benefits of assimilating research results into decision-support tools in areas of national priority.
- 5.10.3.4 Provides support to other Centers in their lead program roles.
- 5.10.3.5 Promotes the Agency's strategic goals and, with the common purpose of achieving NASA's Vision and Mission, supports all Agency Centers and Mission Directorates.
- 5.10.4 LINE OF SUCCESSION. In the following order: Deputy Director, Stennis Space Center; Associate Director, Stennis Space Center; Director, Engineering and Test Directorate; and Director, Center Operations Directorate.



5.11 NASA Engineering and Safety Center

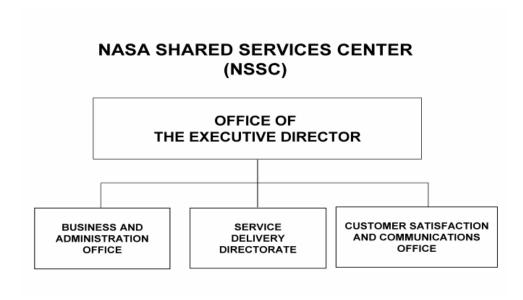
- 5.11.1 MISSION. The NASA Engineering and Safety Center (NESC), located at the Langley Research Center, serves as a major Agency-wide technical resource focused on engineering excellence supporting the safety and success of NASA missions. The NESC provides independent engineering and technical expertise to evaluate technical problems and supplement Center-based engineering and safety activities for NASA programs. The NESC shall perform independent engineering assessments, analysis, and testing to ensure technical adequacy and, thus, the safety of NASA activities. In relation to the Center's mission, the term "safety" encompasses those aspects of NASA system designs and operations that are important to mission success and that relate to potential risks to the public, to NASA, and to contractor flight and ground personnel. The term "engineering" signifies any of the professional technical design, manufacturing, and operational disciplines, including systems engineering and the various assurance engineering disciplines. The NESC serves the engineering, safety and mission assurance, and program/project communities as a value-added, independent resource.
- 5.11.2 OVERALL RESPONSIBILITIES. The NESC Director reports to the NASA Chief Engineer and performs the following activities:
- 5.11.2.1 Resolves high-risk technical issues by performing independent, in-depth technical assessments, testing, and analyses for NASA programs, projects, engineering and technical organizations, and Safety and Mission Assurance (SMA) organizations.
- 5.11.2.2 Proactively identifies potential technical issues by maintaining technical insight to major programs and performs independent data mining and trend analysis activities within single NASA programs and across multiple NASA programs.
- 5.11.2.3 Provides Agency-level stewardship for critical engineering disciplines and performs discipline-enhancing activities through the NASA Technical Fellows Program.
- 5.11.2.4 Transfers knowledge and lessons learned through various technical reports, communications, and the NESC Academy.

- 5.11.2.5 Provides independent systems engineering and analysis.
- 5.11.2.6 Leads and supports selected mishap investigations, as requested by the NASA Safety Center (NSC) and other organizations.
- 5.11.3 SPECIAL RELATIONSHIPS. The core NESC organization is comprised of senior engineering experts from across the Agency, whose capabilities are complemented through partnerships with additional experts within NASA, other government organizations, national laboratories, universities, and industry. NASA Centers provide technical personnel, resources, and facilities to support the NESC mission. The NESC partners with the NASA Safety Center (NSC) in conduct of selected technical assessments, mishap investigations, and other activities. The NSC provides SMA discipline expertise for NESC-led teams. The NESC provides engineering discipline expertise for NSC-led teams, as requested.
- 5.11.4 LINE OF SUCCESSION. Deputy Director, NASA Engineering and Safety Center; and Deputy Director for Safety, NASA Engineering and Safety Center.



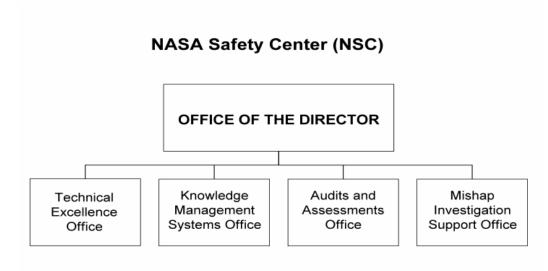
5.12 NASA Shared Services Center

- 5.12.1 MISSION. The NASA Shared Services Center (NSSC), located at Stennis Space Center, serves as a major Agency-wide service resource that provides timely, accurate, high-quality, cost-effective, and customer-focused services for NASA. The NSSC serves the information technology (IT), financial management, procurement, and human resources communities as a value added, independent resource. Increased operational efficiency and improved overall customer service are achieved through consolidated business and technical services. By achieving synergy within and across functions, the NSSC will reduce resource requirements for institutional support areas and position NASA for further business process improvements and innovations.
- 5.12.2 OVERALL RESPONSIBILITIES.
- 5.12.2.1 The NSSC Executive Director reports directly to the Associate Administrator for Institutions and Management and is responsible for the following:
- 5.12.2.2 Provides timely, accurate, high-quality, cost-effective, and customer-focused support for selected NASA businesses and technical services.
- 5.12.2.3 Provides a variety of transactional and administrative activities in four lines of business: Financial Management, Human Resources, Information Technology, and Procurement for NASA.
- 5.12.2.4 Provides effective and consistent services for all employees and vendors by standardizing business processes and integrating systems and technology.
- 5.12.2.5 Implements an organization that employs shared services leading practices in management and process development.
- 5.12.2.6 Promotes the Agency's strategic goals with the common purpose of achieving NASA's vision and mission by providing support Agency wide.
- 5.12.3 SPECIAL RELATIONSHIPS
- 5.12.3.1 The Executive Director of the NASA Shared Services Center is a member of NASA's Operations Management Council.
- 5.12.3.2 NSSC shares an infrastructure alliance with the Stennis Space Center to minimize infrastructure duplication.
- 5.12.3.3 NSSC works in cooperation with the following officials to provide services at the NSSC:
- a. Chief Financial Officer to provide management of financial management services.
- b. Assistant Administrator for Human Capital Management to provide management of human resources services.
- c. Chief Information Officer to provide management of IT services.
- d. Assistant Administrator for Procurement to provide management of procurement services.
- 5.12.4 LINE OF SUCCESSION. In the following order: Deputy Director, NSSC; Director for Business and Administration Office, NSSC; and Director of Customer Satisfaction and Communications Office, NSSC.



5.13 NASA Safety Center

- 5.13.1 MISSION. The NASA Safety Center (NSC), a tenant organization located near and administratively supported by the Glenn Research Center, serves as an Agency-wide resource for strengthening Safety and Mission Assurance (SMA) capabilities and enabling more uniform and effective SMA support for the safe and successful execution of all NASA programs. The NSC promotes technical excellence through a balanced program for leadership development, education, training, communication, and information management in the SMA disciplines. The term "SMA" refers to the disciplines that include safety, reliability, maintainability, quality engineering, and quality assurance.
- 5.13.2 OVERALL RESPONSIBILITIES. The Director, NSC reports to the Chief, Safety and Mission Assurance and manages the NSC in the following activities:
- 5.13.2.1 Enhances knowledge and capabilities within the SMA community by developing a technical excellence program that fosters education, training, and leadership development within SMA and other engineering disciplines.
- 5.13.2.2 Provides SMA technical support to Agency managers while embracing the concept that SMA encompasses important engineering and operations disciplines that enable and enhance the effective execution of all NASA programs from concept through retirement or mission completion.
- 5.13.2.3 Manages the audit, review, and assessment process for evaluating and assuring conformance with Agency SMA requirements.
- 5.13.2.4 Facilitates the mishap investigation process and supports mishap investigation boards. Performs in-depth analysis, risk assessment, quality assurance, and trending of NASA's mishaps and provides timely and relevant information to the NASA community to ensure understanding and prevent recurrence as part of NASA's mishap prevention efforts. Manages mishap data and provides a centralized mishap information collection system for the Agency.
- 5.13.2.5 Captures and disseminates information of importance and usefulness to the SMA community. Maintains a repository and serves as a clearing house for essential data and information collected from the SMA community.
- 5.13.3 SPECIAL RELATIONSHIPS. NASA Centers provide technical personnel, resources, and facilities to support the NSC mission.
- 5.13.4 LINE OF SUCCESSION. Deputy Director, NASA Safety Center; Director, Technical Excellence, NASA Safety Center; and Director, Audits and Assessments, NASA Safety Center.



5.14 NASA Independent Verification & Validation Facility

5.14.1 MISSION. The NASA Independent Verification and Validation (IV&V) Facility serves as the Agency's sole agent for providing independent

(technically, managerially, and financially independent) software validation and verification services to NASA projects. The IV&V Facility also manages leading-edge research that improves IV&V and software assurance methods, practices, and tools.

- 5.14.2 OVERALL RESPONSIBILITIES. The Director of the NASA IV&V Facility reports to the Chief, Safety and Mission Assurance at NASA Headquarters and manages the following technical activities:
- 5.14.2.1 Applies software engineering best practices to provide the Agency with an independent assessment of the software correctness and quality on safety and mission critical software.
- 5.14.2.2 Provides the early detection and identification of risk elements on safety critical and mission critical software throughout the System Development Life Cycle.
- 5.14.2.3 Improves safety, reliability, and quality of NASA projects' and missions' software through effective application of systems and software IV&V methods, practices, and techniques.
- 5.14.2.4 Provides observations and assessment results to support key decision points and major milestone reviews to the Chief, Safety and Mission Assurance and to NASA project/programs receiving IV&V services.
- 5.14.2.5 Manages the Agency's Software Assurance Research Program for and as directed by the Office of Safety and Mission Assurance.
- 5.14.3 SPECIAL RELATIONSHIPS. Goddard Space Flight Center in Greenbelt, Maryland, provides administrative and facility support in such areas as human capital management, contract management, and facility management, including security and training.
- 5.14.4 LINE OF SUCCESSION. Deputy Director, NASA IV&V Facility; Chief for Integration; Chief Engineer; Chief for Plans and Programs; and Chief for Knowledge Management.

NASA INDEPENDENT VERIFICATION AND VALIDATION (IV&V) FACILITY OFFICE OF THE DIRECTOR RESOURCE KNOWLEDGE IV&V SERVICES OUTREACH AND COMMUNICATIONS PLANS AND OPERATIONS MANAGEMENT MANAGEMENT RESEARCH **PROGRAMS** OFFICE OFFICE OFFICE OFFICE OFFICE OFFICE

| TOC | Preface | Chapter1 | Chapter2 | Chapter3 | Chapter4 | Chapter5 | Chapter6 | Chapter7 | ALL |

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